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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,661	10/17/2003	Martin Miller	455610-2610.1	1207
20999 7590 05/14/2007 FROMMER LAWRENCE & HAUG 745 FIFTH AVENUE- 10TH FL. NEW YORK, NY 10151			EXAMINER TORRES, JUAN A	
			ART UNIT 2611	PAPER NUMBER
			MAIL DATE 05/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/688,661	Applicant(s) MILLER, MARTIN	
	Examiner Juan A. Torres	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-18 is/are rejected.
- 7) ☒ Claim(s) 9, 10, 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2007 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The modifications to the drawings were received on 04/05/2007. These modifications are accepted by the Examiner.

In view of the amendment filed on 04/05/2007, the Examiner withdraws drawings objections of the previous Office action.

The drawings are objected to because:

a) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "105c" (see figure 1).

b) The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "105" (see page 4 lines 18 and 19).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering

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of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because uses form and legal phraseology often used in patent claims, such as "means" and "said". Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: in page 6 line 30 the recitation "PRBS" is improper, because this term has not been introduced previously; it is suggested to be changed to "Pseudo-Random Binary Sequence (PRBS)" in the case that this is what the Applicant means.

Appropriate correction is required.

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The use of the trademark "LeCroy" (see page 4 line 30) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Objections

The modifications to the claims were received on 04/05/2007. These modifications are accepted by the Examiner.

In view of the amendment filed on 04/05/2007, the Examiner withdraws claims objections to claim 5 of the previous Office action.

Claim Rejections - 35 USC § 112

The modifications to the claims were received on 04/05/2007. These modifications are accepted by the Examiner.

In view of the amendment filed 04/05/2007, the Examiner withdraws claims rejections under 35 USC § 112 first paragraph to claims 4-5 and 14-15 of the previous Office action.

In view of the amendment filed 04/05/2007, the Examiner withdraws claims rejections under 35 USC § 112 second paragraph to claims 8-10 and 18-20 of the previous Office action.

Response to Arguments

Applicant's arguments filed 04/05/2007 have been fully considered but they are not persuasive.

Regarding claims 1-20 under 35 USC § 101:

Applicant's arguments, see Amendment - After Non-Final Rejection, filed 04/05/2007, with respect to claims 1-20 have been fully considered and are persuasive. The rejections of claims 1-20 under 35 USC § 101 have been withdrawn.

Regarding claim 15 under 35 USC § 103:

Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8 and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ghiasi (US 6546345 B1).

Regarding claim 1, Ghiasi discloses dividing an acquired waveform into a plurality of waveform slices (figure 3 column 4 lines 24-45, X0-X5); categorizing each of said plurality of waveform slices according to at least a sequence of N bit values prior to

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a bit value being observed (figure 3 column 4 lines 24-45, X0-X5, N=6); averaging said waveform slices in each category resulting in an average pattern for each category (abstract; figure 3 column 4 line 47 to column 5 line 7); storing the average pattern for each category to a computer readable medium (column 5 lines 24-25);
; and displaying each of said averaged patterns in an overlaid manner (abstract; figure 3 column 4 line 47 to column 5 line 7 and column 5 lines 60-66).

Regarding claim 11, Ghiasi discloses means for dividing an acquired waveform into a plurality of waveform slices (figure 3 column 4 lines 24-45, X0-X5); means for categorizing each of said plurality of waveform slices according to at least a sequence of N bit values prior to a bit value being observed (figure 3 column 4 lines 24-45, X0-X5, N=6); means for averaging said waveform slices in each category resulting in an average pattern for each category (abstract; figure 3 column 4 line 47 to column 5 line 7); and a display for displaying each of said averaged patterns in an overlaid manner (abstract; figure 3 column 4 line 47 to column 5 line 7 and column 5 lines 60-66).

Regarding claims 2 and 12, Ghiasi discloses claims 1 and 11, Ghiasi also discloses N is in the range of 3-10 (figure 3 column 4 lines 24-45, X0-X5, N=6).

Regarding claims 3 and 13, Ghiasi discloses claim 2 and 12, Ghiasi also discloses N=6 (figure 3 column 4 lines 24-45, X0-X5, N=6).

Regarding claims 4 and 14, Ghiasi discloses claims 1 and 11, Ghiasi also discloses that each of the waveforms is categorized further according to at least a sequence of P bit values following said bit value being observed (figure 3 column 4 lines 24-45, X0-X5).

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Regarding claims 5 and 15, Ghiasi discloses claims 4 and 14, Ghiasi also discloses that $P=1$ (figure 3 column 4 lines 24-45, X3).

Regarding claims 6 and 16, Ghiasi discloses claims 1 and 11, Ghiasi also discloses that the acquired waveform is stored in memory upon acquisition (abstract; figure 3 column 4 line 47 to column 5 line 7 and column 5 lines 60-66).

Regarding claims 7 and 17, Ghiasi discloses claims 1 and 11, Ghiasi also discloses obtaining data dependent jitter based upon a peak-to-peak variation of threshold crossing time for a specified vertical threshold (figure 4C column 6 lines 5-58).

Regarding claims 8 and 18, Ghiasi discloses claims 1 and 11, Ghiasi also discloses characterizing the eye crossing level by observing a level at which the crossing distribution's peak-to-peak variation is narrowest in said display (figure 4C column 6 lines 5-58).

Allowable Subject Matter

Claims 9, 10, 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is 571-272-3119. The examiner can normally be reached on 8-6 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 571-272-3021. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Juan Alberto Torres
04-30-2007

TEMESGHEN GHEB
PRIMARY EXAMINER
SAE
6X